#### **Specifications**

Environment	Line level unbalanced analogue audio	
Devices	DVD players, satellite receivers, MPEG players, laptops, hi-	
	fidelity stereo audio amplifiers, audio switchers, AV monitors and	
	other line level audio equipment.	
Transmission	Transparent to the user	
3 dB Bandwidth	20 Hz to 20 kHz over the distance range	
Maximum Input	1.1 Vp-p	
Insertion Loss per Balun Pair	Less than 2 dB over the frequency range	
Common Mode Rejection Ratio	Greater than 60 dB at 1 kHz	
(CMRR)	Greater than 40 dB over the frequency range	
THD	Less than 0.007% at 1 kHz	
Audio Source Impedance	100 ohm maximum	
Audio Receiver Impedance	10 kohm minimum	
Max. Distance via	3,250 ft (1.0 km)	
Cat 5E/6 UTP/STP Cable		
Pin Configuration (RJ45)	Audio 1 (White): Pins 1(R) & 2(T)	
	Audio 2 (Red): Pins 3(R) & 6 (T)	
Cable:	24 AWG or lower solid copper twisted pair wire	
Cat 5E/6 UTP/STP	Impedance: 100 ohm at 1 MHz	
	Maximum capacitance: 20 pf/ft	
	Attenuation: 6.6 dB/1,000 ft at 1 MHz	
Cable: Coax	Shielded audio cable	
Connectors	Two (2) RCA-F	
	One (1) RJ45	
Temperature	Operating: 0° to 55°C	
	Storage: -20° to 85°C	
	Humidity: Up to 95% non-condensing	
Enclosure	ABS. Fire retardant plastic	
Dimensions	86 mm x 86 mm x 36 mm. Choose 40 mm deep back box to	
	allow for Cat 5E/6 wiring connection.	
Weight	3.5 oz. (100 g)	
Warranty	Lifetime	
Order Information	500028-WP-UK Stereo Hi-Fi Audio Wall Plate Balun	
	UPC: 6-27699-91028-3	

8495 Dalton Road, Mount Royal, Quebec, Canada. H4T 1V5

Tel: (514) 905-0588 Fax: (514) 905-0589 Toll Free (North America): (877) 689-5228 E-mail: videoease@muxlab.com URL: www.muxlab.com



# Stereo Hi-Fi Audio Wall Balun 500028-WP-UK Quick Installation Guide

#### Overview

The Stereo Hi-Fi Audio Wall Balun (500028-WP-UK) allows unbalanced line level stereo audio to be transmitted up to 3,250 ft (1.0 km) via an unshielded copper twisted pair (UTP) cable in a point-to-point connection. Used in pairs, or in conjunction with the 500028, the product is designed for high fidelity applications where full audio bandwidth (20 Hz to 20 kHz) is required. Used in pairs, the Stereo Hi-Fi Audio Wall Balun eliminates costly and bulky audio cables, allowing audio equipment to be connected or moved within a structured cabling environment. Applications include; Audio distribution, high-fidelity sound systems, and custom residential audio systems.

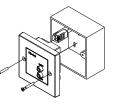
## Installation

One (1) pair of baluns is needed to complete one stereo hi-fi audio connection via Cat 5E/6 twisted pair. To install the baluns, perform the following steps:

1. Identify the pin configuration of the baluns. Two (2) twisted pairs are required as shown in the diagram to the right. The pin configuration follows the EIA/TIA 568A/B standard. The Stereo Hi-Fi Balun is reverse polarity sensitive. Please ensure that wiring is straight-through (Ring to Ring, Tip to Tip).

	RCA Red (F
12345678	

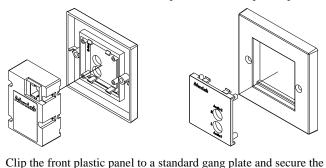
To install the balun in a single back box, choose a back box 2. with a depth of 40 mm or more. Connect the RJ45 plug into the rear of the balun. Secure the balun with the 2 front screws.

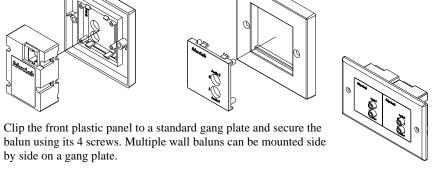


- 3. Plug one (1) balun into the stereo hi-fi audio output of the audio source according to the color code of the RCA connectors.
- 4. Plug the second balun into the stereo hi-fi audio input of the receiver at the remote end.
- 5. Complete the connection between the two baluns, using standard Cat 5E/6 twisted pair cable and connecting hardware, terminated by RJ45 plugs at both ends. Ensure that there are no split pairs or taps.
- 6. Power-on the audio equipment and check the audio quality. The audio should be clear within the maximum specified distances. The following diagram shows a typical configuration.



7. To mount the wall plate balun in a gang plate, you must first remove the 4 rear screws, then remove the balun. Next unclip the balun front plastic panel.





0.843 [21.40]allah MuxLab 500028-WP-UK 2.600 [66.04]  $\bigcirc$  $\bigcirc$ Stereo Hi-Fi Balun Ð C€ 0.591 [15.02] •—\_\_\_\_\_\_1.800 [45.72]—\_• Front view Side view Rear view

### Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in respect to the installation of the Stereo Hi-Fi Audio Balun. If you still cannot diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).

Symptom	<b>Probable Causes</b>	Possible Solutions
Poor audio quality	EMI interference	Check that wiring is not too close to transformers and ballasts.
	Split pair	Ensure that the UTP pairs are not split and that each pair of wires is twisted.
	No power	Check your audio system for power.
No audio	Open circuit	Check wiring to ensure continuity.
	Defective balun	Change Stereo Hi-Fi/Video Baluns for another pair.
Audio phase cancellation	Reversed wires	Check for straight-through wiring.
Audio weak	Distance specifications exceeded	Check DC loop resistance and verify if distance spec is exceeded. Reduce cable length or eliminate high-loss components.

by side on a gang plate.

8.